ABSTRACT OF THE DISCLOSURE

A polyimide film F is brought into an intimate contact with a molding die 3 having a concave molding surface 3a so as to tightly close the open end thereof, and the polyimide film F is bent to deform only by the pressure difference of gas while being heated in a contactless manner. Molding is conducted by applying depressurization for a space 8 on the side of the molding die 3 relative to the polyimide film F while pressurizing the space 9 on the opposite side for the pressure difference at least in the final stage of the bending deformation so as to be in intimate contact with the concave molding surface 3a.